DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/17/2009 has been entered.

Claims 1-28, 30 and 41 are canceled.

Claims 29, 31-40, 42-44 are amended.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael L. Gellner, Reg. 27,256 on 03/26/2009.

Please amend the application as follow:

Claims 1-28 (Canceled).

Claim 29 (currently amended) A method to create an individual user profile for an individual user from a multi-user profile that comprises a list of word-weight pairs, comprising:

at least once splitting said multi-user profile based on user features, wherein said multi-user comprises a combination of user profiles of all users of a consumer device, and wherein said user features include predetermined schemes or rules according to which said individual user of said consumer device makes selection in an application of said consumer device,

wherein said at least once splitting includes:

performing a tentative split according to said user features to generate a first and a second sub user profiles;

calculating a relative difference between said two sub user profiles;

performing said performing a tentative split and calculating said relative difference until all or a predetermined number of tentative splits are performed; and

splitting said multi-user profile according to that tentative split that yields the highest relative difference in case said relative difference lies above a predetermined threshold,

wherein said relative difference is calculated by calculating a difference of a first discrete probability distribution of said first sub user profile over said user features that are contained therein and of a second discrete probability

distribution of said second sub user profile over said user features that are contained therein, and

wherein said user feature comprise one or more of the following features:

preferred channel of audio/video program consumed by said user,

typical time to consume an audio/video program consumed by said user,

length of consuming an audio/video program by said user in relation to said total length of said audio/video programs,

time of beginning said consuming an audio/video program by said user in relation to start time of said audio/video program,

typical length of consuming an audio video program by said user in relation to a time of consuming,

relation between how often a particular audio/video program is consumable and how often it in consumed by said user,

general audio/video program consuming behavior of said user, in particular in relation to a switch-on time and length of a used audio/video device,

audio/video programs recorded by said user,

time duration between recording of a particular audio/video program by said user and consuming of said audio/video program by said user,

actual mood of said user,

actual wish of audio/video program entered by said user,

year of production of an audio/video program consumed by said user,

director and/or actor and/or group of actors of an audio/video program consumed by said user,

type of an audio/video program consumed by said user; and

title of an audio/video program consumed by said user.

Claims 30-31 (Canceled).

Claim 32 (previously presented) The method according to claim 29, wherein said difference of said two discrete probability distributions is calculated using a symmetrized Kullback-Leiber-distance sum, where events which happen zero times are replaced by one virtual occurrence or where only events which happen at least once in both distributions are taken into account.

Claim 33 (currently amended) A method to specify a suggestion for next selection of a user, which suggestion is determined on a basic of suggestion results which are computed of future program descriptions and a user profile created by method specified in claim 29, comprising:

Filtering

A user history which is used to create the user profile, and/or

The user profile, and/or

The suggestion results,

Based on an actual situation of said user represented on the basis of user features that represent a typical general behaviour of an individual user in respect to said application where said user profile is used.

Claim 34 (previously presented) The method according to claim 29, wherein said general key structure includes a forgetting factor.

Claim 35 (previously presented) The method according to claim 29, wherein a future program comprises a stored personal contact.

Claim 36 (previously presented) The method according to claim 29, wherein said method is used in an audio/video program suggestion engine.

Claim 37 (previously presented) The method according to claim 36, wherein said audio/video program suggestion engine is internet based.

Claim 38 (previously presented) The according to claim 29, wherein said method is client based.

Claim 39 (Canceled).

Claim 40 (previously presented) A computer program product concludes computer storage medium, having computer readable instruction that when executed on a processor perform the method as defined in claim 29, said processor being included in a computer, micro processor, or digital signal processor, of a home server, set-top-box, TV, VCR, or PDA.

Claim 41 (Canceled).

Claim 42 (previously presented) A computer-implemented profiler to create a user profile that comprises a list of word-weight pairs, being configured to perform the method as defined in claim 29.

Claim 43 (previously presented) A suggestion engine to specify a suggestion for a next selection of a user, which suggestion is determined on the basis of suggestion results which are computed of future program description and a user profile, configured to perform the method as defined in claim 33.

Claim 44 (previously presented) A suggestion engine according to claim 43, including a profiler configured to perform computing the weights based on user features that

represent a typical general behaviour of an individual user in respect to the application where said user profile is used.

Claim 45 (new) A method to create an individual user profile for an individual user from a multi-user profile that comprises a list of word-weight pairs, comprising:

at least once splitting said multi-user profile based on user features, wherein said multi-user comprises a combination of user profiles of all users of a consumer device, and wherein said user features include predetermined schemes or rules according to which said individual user of said consumer device makes selection in an application of said consumer device,

wherein said at least once splitting includes:

performing a tentative split according to said user features to generate a first and a second sub user profiles;

calculating a relative difference between said two sub user profiles;

performing said performing a tentative split and calculating said relative difference until all or a predetermined number of tentative splits are performed; and

splitting said multi-user profile according to that tentative split that yields the highest relative difference in case said relative difference lies above a predetermined threshold,

wherein said difference of said two discrete probability distributions is calculated using a symmetrized Kullback-Leiber-distance sum, where events

which happen zero times are replaced by one virtual occurrence or where only events which happen at least once in both distributions are taken into account, and

wherein said user feature comprise one or more of the following features:

preferred channel of audio/video program consumed by said user,

typical time to consume an audio/video program consumed by said user,

length of consuming an audio/video program by said user in relation to said total length of said audio/video programs,

time of beginning said consuming an audio/video program by said user in relation to start time of said audio/video program,

typical length of consuming an audio video program by said user in relation to a time of consuming,

relation between how often a particular audio/video program is consumable and how often it in consumed by said user,

general audio/video program consuming behavior of said user, in particular in relation to a switch-on time and length of a used audio/video device,

audio/video programs recorded by said user,

time duration between recording of a particular audio/video program by said user and consuming of said audio/video program by said user,

actual mood of said user,

actual wish of audio/video program entered by said user,

year of production of an audio/video program consumed by said user,

director and/or actor and/or group of actors of an audio/video program consumed by said user,

type of an audio/video program consumed by said user; and

title of an audio/video program consumed by said user.

Claim 46 (New) The method according to claim 29, wherein said relative difference is calculated by calculating a difference of a first discrete probability distribution of said first sub user profile over said user features that are contained therein and of a second discrete probability distribution of said second sub user profile over said user features that are contained therein

Claim 47 (New) A method to specify a suggestion for next selection of a user, which suggestion is determined on a basic of suggestion results which are computed of future program descriptions and a user profile created by method specified in claim 29, comprising:

filtering

a user history which is used to create the user profile, and/or

the user profile, and/or

the suggestion results,

based on an actual situation of said user represented on the basis of user features that represent a typical general behaviour of an individual user in respect to said application where said user profile is used.

Claim 48 (New) The method according to claim 29, wherein said general key structure includes a forgetting factor.

Claim 49 (New) The method according to claim 29, wherein a future program comprises a stored personal contact.

Claim 50 (New) The method according to claim 29, wherein said method is used in an audio/video program suggestion engine.

Claim 51 (New) The method according to claim 36, wherein said audio/video program suggestion engine is internet based.

Claim 52 (New) The according to claim 29, wherein said method is client based.

Claim 53 (New) A computer program product concludes computer storage medium, having computer readable instruction that when executed on a processor perform the method as defined in claim 29, said processor being included in a computer, micro processor, or digital signal processor, of a home server, set-top-box, TV, VCR, or PDA.

Claim 54 (New) A computer-implemented profiler to create a user profile that comprises a list of word-weight pairs, being configured to perform the method as defined in claim 29.

Claim 55 (New) A suggestion engine to specify a suggestion for a next selection of a user, which suggestion is determined on the basis of suggestion results which are computed of future program description and a user profile, configured to perform the method as defined in claim 33.

Claim 56 (New) A suggestion engine according to claim 43, including a profiler configured to perform computing the weights based on user features that represent a typical general behavior of an individual user in respect to the application where said user profile is used.

Allowable Subject Matter

3. Claims 29, 32-38, 40, 42-56 are allowed over the prior art.

The following is an examiner's statement of reasons for allowance:

As to claim 29, examiner agrees with the applicant argument on page 3-5 of the response filed on 02/17/2009 "Bala does not describe a splitting of a multi-user profile based on user features, wherein the feature predetermined schemes or rules according to which an individual...." Furthermore, none of the prior cited references disclose "wherein said relative difference is calculated by calculating a difference of a first discrete probability distribution of said first sub user profile over said user features that are contained therein and of a second discrete probability distribution of said second sub user profile over said user features that are contained therein."

Claims 32-38, 40, 42-44 are depended on claim 29; therefore, claims 32-38, 40, 42-44 are allowed over the same reason as to claim 29.

As to claim 45 recites the similar limitations as to claim 1 and furthermore, none of the prior cited references disclose "wherein said difference of said two discrete probability distributions is calculated using a symmetrized Kullback-Leiber-distance sum, where events which happen zero times are replaced by one virtual occurrence or where only events which happen at least once in both distributions are taken into account."

Claims 32-38, 40, 42-44 are depended on claim 29; therefore, claims 32-38, 40, 42-44 are allowed over the same reason as to claim 29.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is at 571-272-4041, or unofficial fax number for the purpose of discussion (571) 273-4041 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at 571-272-4107.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

(571) 273-8300 [Official Communication]

/Baoquoc N To/

Primary Examiner, Art Unit 2162